DERIVATE DAGLI STUDI DI FUNZIONE DA PAG.1878 A PAG.1904

Funzione	*Derivata Prima*	*Derivata Seconda*
$x^3 - 12x$	$3\,x^2 - 12$	$6\,x$
$x^2 - x^3$	$2\,x - 3\,x^2$	$2 - 6x$
$x^3 - 3x + 2$	$3x^2 - 3$	$6x$
$x^4 - 16x^2$	$4\,x^3 - 32\,x$	$12\,x^2 - 32$
$x^4 - 5x^2 + 4$	$4\,x^3 - 10\,x$	$12\,x^2 - 10$
$\frac{x^3}{6} - x^2 + \frac{3x}{2}$	$\frac{x^2}{2} - 2\,x + \frac{3}{2}$	$x - 2$
$x^2 - 4x^4$	$2\,x - 16\,x^3$	$2 - 48\,x^2$
$-\frac{x^5}{5} + x$	$1 - x^4$	$-4\,x^3$
$-x^4 - x^2$	$-4\,x^3 - 2\,x$	$-12\,x^2 - 2$
$x(x^2-4)$	$3\,x^2 - 4$	$6\,x$
$x^3 - 2x^2 + x - 2$	$3\,x^2 - 4\,x + 1$	$6\,x - 4$
$x(x+2)^2$	$3\,x^2 + 8\,x + 4$	$6\,x + 8$
$x^3 - 2x + 1$	$3\,x^2 - 2$	$6\,x$
$2x^3 - x^4$	$6\,x^2 - 4\,x^3$	$12\,x - 12\,x^2$
$(x^2-2x)^2 + 1$	$(4\,x - 4)\,(x^2 - 2\,x)$	$12\,x^2 - 24\,x + 8$
$x^4 - 2x^3 + 1$	$4\,x^3 - 6\,x^2$	$12\,x^2 - 12\,x$
$2x^2(x+1)^3$	$6\,x^2\,(x+1)^2 + 4\,x\,(x+1)^3$	$40\,x^3 + 72\,x^2 + 36\,x + 4$
$3x^4 + 2x^3 - 3x^2$	$12\,x^3 + 6\,x^2 - 6\,x$	$36\,x^2 + 12\,x - 6$
$\frac{7x^4}{4} - \frac{14x^3}{3}$	$7\,x^3 - 14\,x^2$	$21\,x^2 - 28\,x$
$3x^4 + 4x^3 + 1$	$12\,x^3 + 12\,x^2$	$36\,x^2 + 24\,x$
$4 - 8x + 5x^2 - x^3$	$-3\,x^2 + 10\,x - 8$	$10 - 6\,x$

$\frac{x^2-1}{x}$	$1+\frac{1}{x^2}$	$-\frac{2}{x^3}$
$\frac{x^2-4}{x^2-1}$	$\frac{6\,x}{x^4-2\,x^2+1}$	$-\frac{18\,x^2+6}{x^6-3\,x^4+3\,x^2-1}$
$\frac{x+4}{x}$	$-\frac{4}{x^2}$	$\frac{8}{x^3}$
$\frac{x^2-3x+2}{x^2-1}$	$\frac{3}{x^2+2\,x+1}$	$\frac{1}{-\frac{x^3}{6}-\frac{x^2}{2}-\frac{x}{2}-\frac{1}{6}}$
$\frac{3}{x^3-4x}$	$-\frac{x^2-\frac{4}{3}}{\left(\frac{x^3-4\,x}{3}\right)^2}$	$\frac{2\left(x^2-\frac{4}{3}\right)^2}{\left(\frac{x^3-4\,x}{3}\right)^3}-\frac{2}{x\cdot\left(\frac{x^2-4}{3}\right)^2}$
$\frac{1-x^2}{x-4}$	$\frac{-x^2+8\,x-1}{x^2-8\,x+16}$	$\frac{1}{-\frac{x^3}{30}+\frac{2\,x^2}{5}-\frac{8\,x}{5}+\frac{32}{15}}$
$\frac{x^3+27}{x^3}$	$-\frac{81}{x^4}$	$\frac{324}{x^5}$
$\frac{x^2-8}{2x-1}$	$-\frac{2\,(x^2-8)}{(2\,x-1)^2}+\frac{x}{x-\frac{1}{2}}$	$\frac{1}{-\frac{4\,x^3}{31}+\frac{6\,x^2}{31}-\frac{3\,x}{31}+\frac{1}{62}}$
$-x+6-\frac{4}{x}$	$-1+\frac{4}{x^2}$	$-\frac{8}{x^3}$
$x-1+\frac{9}{x}$	$1-\frac{9}{x^2}$	$\frac{18}{x^3}$
$x+\frac{1}{x}$	$1-\frac{1}{x^2}$	$\frac{2}{x^3}$
$\frac{x-1}{x^2}$	$-\frac{1}{x^2}+\frac{2}{x^3}$	$\frac{2}{x^3}-\frac{6}{x^4}$
$-\frac{x^3}{x^3-1}$	$\frac{3\,x^2}{x^6-2\,x^3+1}$	$-\frac{12\,x^4+6\,x}{x^9-3\,x^6+3\,x^3-1}$
$\frac{x}{x^2+4}$	$-\frac{2\,x^2}{(x^2+4)^2}+\frac{1}{x^2+4}$	$\frac{8\,x^3}{(x^2+4)^3}-\frac{6\,x}{(x^2+4)^2}$
$\frac{x^2-4}{x^2+4}$	$\frac{16\,x}{x^4+8\,x^2+16}$	$\frac{64-48\,x^2}{x^6+12\,x^4+48\,x^2+64}$
$\frac{x^3-8}{x^2}$	$1+\frac{16}{x^3}$	$-\frac{48}{x^4}$
$-\frac{(x+1)^2}{x}$	$-1+\frac{1}{x^2}$	$-\frac{2}{x^3}$

$\frac{x^2}{x^2+1}$	$\frac{2x}{x^4+2x^2+1}$	$\frac{2-6x^2}{x^6+3x^4+3x^2+1}$
$\frac{2x+1}{x^2-2x+1}$	$\frac{2(x+2)}{1-3x+3x^2-x^3}$	$-\frac{4x+14}{3\left(-\frac{x^4}{3}+\frac{4x^3}{3}-2x^2+\frac{4x}{3}-\frac{1}{3}\right)}$
$\frac{x^2+1}{x^2-9}$	$-\frac{20x}{x^4-18x^2+81}$	$\frac{60x^2+180}{x^6-27x^4+243x^2-729}$
$\frac{3}{x^2+4}$	$-\frac{6x}{(x^2+4)^2}$	$\frac{24x^2}{(x^2+4)^3}-\frac{6}{(x^2+4)^2}$
$\frac{x^2-x-2}{x^2-6x+9}$	$\frac{5x-7}{2\cdot\left(\frac{27-27x+9x^2-x^3}{2}\right)}$	$\frac{-\frac{10x}{3}+2}{-\frac{x^4}{3}+4x^3-18x^2+36x-27}$
$\frac{3-x}{(x+1)^2}$	$-\frac{2(3-x)}{(x+1)^3}-\frac{1}{(x+1)^2}$	$\frac{6(3-x)}{(x+1)^4}+\frac{4}{(x+1)^3}$
$\frac{x^4}{x^3-1}$	$\frac{x^6-4x^3}{x^6-2x^3+1}$	$\frac{6x^5+12x^2}{x^9-3x^6+3x^3-1}$
$\frac{x^2-4x+3}{x^2-4}$	$\frac{2x^2-7x+8}{\frac{x^4}{2}-4x^2+8}$	$\frac{\frac{x^3}{2}-\frac{21x^2}{8}+6x-\frac{7}{2}}{-\frac{x^6}{16}+\frac{3x^4}{4}-3x^2+4}$
$\frac{x^2-4x+3}{x^3}$	$-\frac{1}{x^2}+\frac{8}{x^3}-\frac{9}{x^4}$	$\frac{2}{x^3}-\frac{24}{x^4}+\frac{36}{x^5}$
$\frac{2x^3-x^2-2x+1}{x^2}$	$2+\frac{2}{x^2}-\frac{2}{x^3}$	$-\frac{4}{x^3}+\frac{6}{x^4}$
$\frac{1}{3x^5-5x^3}$	$-\frac{15x^2-15}{x^4(3x^2-5)^2}$	$\frac{21870x^4-41310x^2+24300}{2187x^{11}-10935x^9+18225x^7-10125x}$
$\frac{(x^2-4)^2}{x^3}$	$1+\frac{8}{x^2}-\frac{48}{x^4}$	$-\frac{16}{x^3}+\frac{192}{x^5}$
$\frac{2(3-x)^3}{(x-2)^2}$	$-\frac{4(3-x)^3}{(x-2)^3}-\frac{6(3-x)^2}{(x-2)^2}$	$\frac{36-12x}{x^4-8x^3+24x^2-32x+16}$
$\frac{9(x+1)}{(x+2)^3}$	$-\frac{27x+27}{(x+2)^4}+\frac{9}{(x+2)^3}$	$\frac{108x+108}{(x+2)^5}-\frac{54}{(x+2)^4}$
$\frac{2x^2-3}{x^2-2x+2}$	$\frac{-4x^2+14x-6}{x^4-4x^3+8x^2-8x+4}$	$\frac{8x^3-42x^2+36x+4}{x^6-6x^5+18x^4-32x^3+36x^2-24x+}$
$\frac{x^2-3x+2}{x^2+3x+2}$	$\frac{6x^2-12}{x^4+6x^3+13x^2+12x+4}$	$\frac{72+72x-12x^3}{x^6+9x^5+33x^4+63x^3+66x^2+36x+}$

$\frac{x-2}{(x+1)(x^2-4)}$	$-\frac{1}{(x+1)\,(x+2)^2}$ $-\frac{1}{(x+2)\,(x+1)^2}$	$\frac{2}{(x+1)(x+2)^3}+\frac{2}{(x+2)(x+1)^3}$ $+\frac{2}{(x+1)^2(x+2)^2}$
$\frac{x^3-3x^2-x+3}{x^2-2x}$	$\frac{x^4-4\,x^3+7\,x^2-6\,x+6}{x^4-4\,x^3+4\,x^2}$	$\frac{24-36x+18x^2-6x^3}{x^6-6x^5+12x^4-8x^3}$
$\sqrt{\frac{2x-1}{x}}$	$\frac{1}{2\sqrt{\frac{2\,x-1}{x}}\,x^2}$	$-\frac{1}{\sqrt{\frac{2\,x-1}{x}}\,x^3}-\frac{1}{4\cdot\left(\frac{2\,x-1}{x}\right)^{\frac{3}{2}}\,x^4}$
$\sqrt{x^2-4}$	$\frac{x}{\sqrt{x^2-4}}$	$-\frac{x^2}{(x^2-4)^{\frac{3}{2}}}+\frac{1}{\sqrt{x^2-4}}$
$x\sqrt{4-x^2}$	$-\frac{x^2}{\sqrt{4-x^2}}+\sqrt{4-x^2}$	$-\frac{x^3}{(4-x^2)^{\frac{3}{2}}}-\frac{3\,x}{\sqrt{4-x^2}}$
$\frac{1}{\sqrt{x+3}}$	$-\frac{1}{2\,(x+3)^{\frac{3}{2}}}$	$\frac{3}{4\,(x+3)^{\frac{5}{2}}}$
$\frac{1}{\sqrt{x^2-1}}$	$-\frac{x}{(x^2-1)^{\frac{3}{2}}}$	$\frac{3\,x^2}{(x^2-1)^{\frac{5}{2}}}-\frac{1}{(x^2-1)^{\frac{3}{2}}}$
$\sqrt{x^3+1}$	$\frac{3\,x^2}{2\sqrt{x^3+1}}$	$-\frac{9\,x^4}{4\,(x^3+1)^{\frac{3}{2}}}+\frac{3\,x}{\sqrt{x^3+1}}$
$\frac{\sqrt{x^2-2x}}{x}$	$-\frac{\sqrt{x^2-2\,x}}{x^2}+\frac{x-1}{x\sqrt{x^2-2\,x}}$	$\frac{2\sqrt{x^2-2\,x}}{x^3}-\frac{x}{(x^2-2\,x)^{\frac{3}{2}}}-\frac{1}{x\sqrt{x^2-2\,x}}$ $+\frac{2}{(x^2-2\,x)^{\frac{3}{2}}}$ $+\frac{2}{\sqrt{x^2-2\,x}\,x^2}$ $-\frac{1}{x\,(x^2-2\,x)^{\frac{3}{2}}}$
$\sqrt{4x-x^2}$	$\frac{2-x}{\sqrt{4\,x-x^2}}$	$\frac{(2-x)\,(x-2)}{(4\,x-x^2)^{\frac{3}{2}}}-\frac{1}{\sqrt{4\,x-x^2}}$
$\frac{\sqrt{x}+1}{-\sqrt{x}+1}$	$-\frac{1}{\sqrt{x}\left(-x+2\sqrt{x}-1\right)}$	$\frac{1}{2\left(-x+2\sqrt{x}-1\right)x^{\frac{3}{2}}}$ $+\frac{-1+\frac{1}{\sqrt{x}}}{\sqrt{x}\left(-x+2\sqrt{x}-1\right)^2}$
$-\sqrt{x^2-4}+x$	$-\frac{x}{\sqrt{x^2-4}}+1$	$\frac{x^2}{(x^2-4)^{\frac{3}{2}}}-\frac{1}{\sqrt{x^2-4}}$
$-\sqrt{x^2+4x}+x$	$-\frac{x+2}{\sqrt{x^2+4\,x}}+1$	$\frac{(x+2)^2}{(x^2+4\,x)^{\frac{3}{2}}}-\frac{1}{\sqrt{x^2+4\,x}}$

$-\sqrt{x-x^2}+1$	$-\frac{\frac{1}{2}-x}{\sqrt{x-x^2}}$	$-\frac{\left(\frac{1}{2}-x\right)\left(x-\frac{1}{2}\right)}{(x-x^2)^{\frac{3}{2}}}+\frac{1}{\sqrt{x-x^2}}$
$-\sqrt{x^2-4}$	$-\frac{x}{\sqrt{x^2-4}}$	$\frac{x^2}{(x^2-4)^{\frac{3}{2}}}-\frac{1}{\sqrt{x^2-4}}$
$\sqrt{x+6}+2$	$\frac{1}{2\sqrt{x+6}}$	$-\frac{1}{4\,(x+6)^{\frac{3}{2}}}$
$\sqrt{x^3-2x}$	$\frac{\frac{3\,x^2}{2}-1}{\sqrt{x^3-2\,x}}$	$\frac{\left(-\frac{3\,x^2}{2}+1\right)\left(\frac{3\,x^2}{2}-1\right)}{(x^3-2\,x)^{\frac{3}{2}}}+\frac{3\,x}{\sqrt{x^3-2\,x}}$
$\frac{2}{\sqrt{2-x}-1}$	$\frac{1}{\sqrt{2-x}\left(\sqrt{2-x}-1\right)^2}$	$\frac{1}{2\left(\sqrt{2-x}-1\right)^2(2-x)^{\frac{3}{2}}}+\frac{1}{(2-x)\left(\sqrt{2-x}-1\right)^3}$
$\sqrt{\frac{x^2-4}{x^2-1}}$	$\frac{3\,x}{\sqrt{\frac{x^2-4}{x^2-1}}\,(x^4-2\,x^2+1)}$	$\frac{-\frac{9\,x^4}{\sqrt{\frac{x^2-4}{x^2-1}}}+\frac{6\,x^2}{\sqrt{\frac{x^2-4}{x^2-1}}}-\frac{9\,x^2}{\left(\frac{x^2-4}{x^2-1}\right)^{\frac{3}{2}}}+\frac{3}{\sqrt{\frac{x^2-}{x^2-}}}}{x^8-4\,x^6+6\,x^4-4\,x^2+1}$
$\sqrt{\frac{(x-1)^3}{x}}$	$\frac{2\,x-3+\frac{1}{x^2}}{2\sqrt{\frac{(x-1)^3}{x}}}$	$-\frac{\left(2\,x-3+\frac{1}{x^2}\right)^2}{4\cdot\left(\frac{(x-1)^3}{x}\right)^{\frac{3}{2}}}+\frac{1-\frac{1}{x^3}}{\sqrt{\frac{(x-1)^3}{x}}}$
$\frac{x-2}{\sqrt{x^2-x}}$	$\frac{\left(\frac{1}{2}-x\right)(x-2)}{(x^2-x)^{\frac{3}{2}}}+\frac{1}{\sqrt{x^2-x}}$	$\frac{\left(\frac{1}{2}-x\right)\left(\frac{3}{2}-3\,x\right)(x-2)}{(x^2-x)^{\frac{5}{2}}}-\frac{x-2}{(x^2-x)^{\frac{3}{2}}}+\frac{2\left(\frac{1}{2}-x\right)}{(x^2-x)^{\frac{3}{2}}}$
$\sqrt{\frac{2x-4}{x-4}}-1$	$-\frac{2}{\sqrt{\frac{2\,x-4}{x-4}}\,(x^2-8\,x+16)}$	$\frac{1}{\sqrt{\frac{2\,x-4}{x-4}}\left(\frac{x^3}{4}-3\,x^2+12\,x-16\right)}-\frac{4}{\left(\frac{2\,x-4}{x-4}\right)^{\frac{3}{2}}(x^2-8\,x+16)^2}$
$\sqrt[3]{x-1}-\sqrt[3]{x}$	$\frac{1}{3\,(x-1)^{\frac{2}{3}}}-\frac{1}{3\,x^{\frac{2}{3}}}$	$-\frac{2}{9\,(x-1)^{\frac{5}{3}}}+\frac{2}{9\,x^{\frac{5}{3}}}$
$\sqrt[3]{(1-x)x^2}$	$\frac{-x^2+\frac{2\,x}{3}}{\left((1-x)\,x^2\right)^{\frac{2}{3}}}$	$\frac{\left(-x^2+\frac{2\,x}{3}\right)\left(2\,x^2-\frac{4\,x}{3}\right)}{\left((1-x)\,x^2\right)^{\frac{5}{3}}}+\frac{\frac{2}{3}-2\,x}{\left((1-x)\,x^2\right)^{\frac{2}{3}}}$
$\sqrt[3]{6x-x^2}$	$\frac{-\frac{2\,x}{3}+2}{(6\,x-x^2)^{\frac{2}{3}}}$	$\frac{\left(-\frac{2\,x}{3}+2\right)\left(\frac{4\,x}{3}-4\right)}{(6\,x-x^2)^{\frac{5}{3}}}-\frac{2}{3\,(6\,x-x^2)^{\frac{2}{3}}}$

$\sqrt[3]{(x-4)^2}$	$\frac{2}{3\sqrt[3]{x-4}}$	$-\frac{2}{9\,(x-4)^{\frac{4}{3}}}$
$\frac{e^x}{x^3}$	$-\frac{3e^x}{x^4}+\frac{e^x}{x^3}$	$\frac{12\,e^x}{x^5}-\frac{6\,e^x}{x^4}+\frac{e^x}{x^3}$
$\frac{1}{xe^x}$	$-\frac{1}{x^2\,e^x}-\frac{1}{x\,e^x}$	$\frac{2}{x^3\,e^x}+\frac{2}{x^2\,e^x}+\frac{1}{x\,e^x}$
e^x+e^{2x}	$2\,e^{2\,x}+e^x$	$4\,e^{2\,x}+e^x$
$\frac{x^2}{e^{2x}}$	$\frac{2\,x-2\,x^2}{e^{2\,x}}$	$\frac{4\,x^2-4\,x-4\,x+2}{e^{2\,x}}$
$\frac{1}{e^{x^2}}$	$-\frac{2\,x}{e^{x^2}}$	$\frac{4\,x^2-2}{e^{x^2}}$
$\frac{e^{2x}}{2^x}$	$\frac{-\ln(2)\;e^{2\,x}+2\,e^{2\,x}}{2^x}$	$\frac{\ln(2)^2\;e^{2\,x}-4\ln(2)\;e^{2\,x}+4\,e^{2\,x}}{2^x}$
$e^x(e^x-1)$	$2\,e^{2\,x}-e^x$	$4\,e^{2\,x}-e^x$
$(x-1)e^{3-x}$	$-(x-1)\,e^{3-x}+e^{3-x}$	$x\,e^{-x+3}-3\,e^{-x+3}$
$\frac{2e^x+4}{e^x-1}$	$-\frac{6\,e^x}{e^{2\,x}-2\,e^x+1}$	$\frac{e^x\,(12\,e^{2\,x}-12\,e^x)}{(e^{2\,x}-2\,e^x+1)^2}-\frac{6\,e^x}{e^{2\,x}-2\,e^x+1}$
$\frac{e^x+1}{1-e^{2x}}$	$\frac{2\,e^{2\,x}\,(e^x+1)}{(1-e^{2\,x})^2}+\frac{e^x}{1-e^{2\,x}}$	$\frac{8\,e^{4\,x}\,(e^x+1)}{(1-e^{2\,x})^3}+\frac{4\,e^{2\,x}\,(e^x+1)}{(1-e^{2\,x})^2}+\frac{4\,e^{3\,x}}{(1-e^{2\,x})^2}+\frac{e^x}{1-e^{2\,x}}$
$(x^2-1)e^x$	$(x^2-1)\,e^x+2\,x\,e^x$	$x^2\,e^x+4\,x\,e^x+e^x$
$e^{\frac{x-1}{2x}}$	$\frac{e^{\frac{x-1}{2\,x}}}{2\,x^2}$	$\frac{e^{\frac{x-1}{2\,x}}}{4\,x^4}-\frac{e^{\frac{x-1}{2\,x}}}{x^3}$
$\frac{(x+2)^2}{e^x}$	$\frac{-x^2-2\,x}{e^x}$	$\frac{x^2-2}{e^x}$
$\frac{2e^x}{(x+1)^2}$	$-\frac{4\,e^x}{(x+1)^3}+\frac{2\,e^x}{(x+1)^2}$	$\frac{12\,e^x}{(x+1)^4}-\frac{8\,e^x}{(x+1)^3}+\frac{2\,e^x}{(x+1)^2}$
$\frac{\sqrt{x}}{e^x}$	$\frac{1}{2\sqrt{x}\,e^x}-\frac{\sqrt{x}}{e^x}$	$-\frac{1}{4\,x^{\frac{3}{2}}\,e^x}-\frac{1}{\sqrt{x}\,e^x}+\frac{\sqrt{x}}{e^x}$
xe^{-x^2}	$\frac{1-2\,x^2}{e^{x^2}}$	$\frac{4\,x^3-6\,x}{e^{x^2}}$
$\frac{x+2}{e^{x+3}}$	$-(x+2)\,e^{-x-3}+e^{-x-3}$	$x\,e^{-x-3}$
$(x^2+4x+4)e^{-x}$	$\frac{-x^2-2\,x}{e^x}$	$\frac{x^2-2}{e^x}$

$(4-x)(e^x-1)$	$1+3\,e^x-x\,e^x$	$2\,e^x-x\,e^x$
$\frac{e^x}{x^2-4}$	$-\frac{2\,x\,e^x}{(x^2-4)^2}+\frac{e^x}{x^2-4}$	$\frac{8\,x^2\,e^x}{(x^2-4)^3}-\frac{4\,x\,e^x}{(x^2-4)^2}-\frac{2\,e^x}{(x^2-4)^2}+\frac{e^x}{x^2-4}$
$e^{\frac{x^2-1}{2x}}$	$\left(\frac{1}{2}+\frac{1}{2\,x^2}\right)e^{\frac{x^2-1}{2\,x}}$	$-\frac{e^{\frac{x^2-1}{2\,x}}}{x^3}+\left(\frac{1}{2}+\frac{1}{2\,x^2}\right)^2 e^{\frac{x^2-1}{2\,x}}$
$(x-1)^{\frac{2}{3}}e^x$	$(x-1)^{\frac{2}{3}}\,e^x+\frac{2\,e^x}{3\,\sqrt[3]{x-1}}$	$(x-1)^{\frac{2}{3}}\,e^x-\frac{2\,e^x}{9\,(x-1)^{\frac{4}{3}}}+\frac{4\,e^x}{3\,\sqrt[3]{x-1}}$
$e^{\frac{2x+1}{x^2-2x+1}}$	$\frac{2\,(x+2)\,e^{\frac{2\,x+1}{x^2-2\,x+1}}}{1-3\,x+3\,x^2-x^3}$	$\frac{(x+2)^2\,e^{\frac{2\,x+1}{x^2-2\,x+1}}}{(1-3\,x+3\,x^2-x^3)\cdot\left(\frac{1-3\,x+3\,x^2-x^3}{4}\right.}+\frac{(x+2)\,e^{\frac{2\,x+1}{x^2-2\,x+1}}}{\frac{x^4}{6}-\frac{2\,x^3}{3}+x^2-\frac{2\,x}{3}+\frac{1}{6}}+\frac{2\,e^{\frac{2\,x+1}{x^2-2\,x+1}}}{1-3\,x+3\,x^2-x^3}$
$\frac{2(e^{2x}-1)}{e^x}$	$\frac{2}{e^x}+2\,e^x$	$-\frac{2}{e^x}+2\,e^x$
$\frac{x}{\ln(x)}$	$-\frac{1}{\ln(x)^2}+\frac{1}{\ln(x)}$	$\frac{-\ln(x)+2}{x\ln(x)^3}$
$\ln(x^2-1)$	$\frac{2\,x}{x^2-1}$	$-\frac{2\,x^2+2}{x^4-2\,x^2+1}$
$\ln\left(\frac{x}{x+2}\right)$	$\frac{2}{x\,(x+2)}$	$-\frac{2}{(x+2)\,x^2}-\frac{2}{x\,(x+2)^2}$
$\frac{1}{\ln(x)}$	$-\frac{1}{x\ln(x)^2}$	$\frac{\ln(x)+2}{x^2\ln(x)^3}$
$\frac{1-\ln(x)}{\ln(x)}$	$-\frac{1}{x\ln(x)^2}$	$\frac{\ln(x)+2}{x^2\ln(x)^3}$
$\ln\left(1-\frac{2}{x}\right)$	$\frac{2}{x\,(x-2)}$	$-\frac{2}{(x-2)\,x^2}-\frac{2}{x\,(x-2)^2}$
$1+\ln(x-2)+\ln(x+2)$	$\frac{1}{x+2}+\frac{1}{x-2}$	$-\frac{1}{(x+2)^2}-\frac{1}{(x-2)^2}$
$\frac{\ln(x)}{4x^2}$	$\frac{-\frac{\ln(x)}{2}+\frac{1}{4}}{x^3}$	$\frac{\frac{3\ln(x)}{2}-\frac{5}{4}}{x^4}$
$\ln(x)^2-4\ln(x)+3$	$\frac{2\ln(x)-4}{x}$	$\frac{-2\ln(x)+6}{x^2}$

$\frac{\ln(x)}{\ln(x)-1}$	$-\frac{1}{x\ln(x)^2-2\,x\ln(x)+x}$	$\frac{\ln(x)+1}{x^2\ln(x)^3-3\,x^2\ln(x)^2+3\,x^2\ln(x)-x^2}$
$2\ln(x)^2-\ln(x^2)$	$\frac{4\ln(x)-2}{x}$	$\frac{-4\ln(x)+6}{x^2}$
$\ln\left(\frac{2x-8}{x-3}\right)$	$\frac{1}{(x-4)\,(x-3)}$	$-\frac{1}{(x-4)\,(x-3)^2}-\frac{1}{(x-3)\,(x-4)^2}$
$\ln(x^2-6x+5)$	$\frac{2\,x-6}{x^2-6\,x+5}$	$-\frac{(2\,x-6)^2}{(x^2-6\,x+5)^2}+\frac{2}{x^2-6\,x+5}$
$\frac{4\ln(x)-2}{x^2}$	$\frac{-8\ln(x)+8}{x^3}$	$\frac{24\ln(x)-32}{x^4}$
$\frac{\ln(x)-1}{\ln(x)+1}$	$\frac{2}{x\ln(x)^2+2\,x\ln(x)+x}$	$-\frac{2\,(\ln(x)+3)}{x^2\ln(x)^3+3\,x^2\ln(x)^2+3\,x^2\ln(x)+x^2}$
$\ln(x+3)^2$	$\frac{2\ln(x+3)}{x+3}$	$\frac{-2\ln(x+3)+2}{(x+3)^2}$
$\ln(-x^3+2x)$	$\frac{2-3\,x^2}{2\,x-x^3}$	$\frac{3\,x^4+4}{-x^6+4\,x^4-4\,x^2}$
$\ln\left(\frac{x^2-1}{x}\right)$	$\frac{x+\frac{1}{x}}{x^2-1}$	$-\frac{2\,(x^2+1)}{(x^2-1)^2}+\frac{1}{x^2}$
$x\ln(x^4)$	$2\,\ln(x^2)+4$	$\frac{4}{x}$
$x\ln(x+2)$	$\ln(x+2)+\frac{x}{x+2}$	$\frac{x+4}{x^2+4\,x+4}$
$\ln(x)+\frac{1}{\ln(x)}$	$-\frac{1}{x\ln(x)^2}+\frac{1}{x}$	$\frac{\ln(x)+2}{x^2\ln(x)^3}-\frac{1}{x^2}$
$\sqrt{x}\ln(x)$	$\frac{\ln(x)}{2\sqrt{x}}+\frac{1}{\sqrt{x}}$	$-\frac{\ln(x)}{4\,x^{\frac{3}{2}}}$
$\ln(e^x+1)$	$\frac{e^x}{e^x+1}$	$-\frac{e^{2\,x}}{(e^x+1)^2}+\frac{e^x}{e^x+1}$
$\frac{\ln(-x)}{2x}$	$\frac{-\ln(-x)+1}{2\,x^2}$	$\frac{\ln(-x)-\frac{3}{2}}{x^3}$
$2\sin(x)\cos(x)-1$	$2\left(\cos(x)\right)^2-2\left(\sin(x)\right)^2$	$-8\sin(x)\cos(x)$
$\sin(x)+\sqrt{3}\cos(x)$	$-\sqrt{3}\sin(x)+\cos(x)$	$-\sqrt{3}\cos(x)-\sin(x)$
$\tan(x)+\sin(x)$	$\left(\sec(x)\right)^2+\cos(x)$	$2\tan(x)\left(\sec(x)\right)^2-\sin(x)$
$\frac{1-\sin(x)}{1+\sin(x)}$	$-\frac{2\cos(x)}{\left(\sin(x)\right)^2+2\sin(x)+1}$	$\frac{2\left(\sin(x)\right)^2+4\left(\cos(x)\right)^2+2\sin(x)}{\left(\sin(x)\right)^3+3\left(\sin(x)\right)^2+3\sin(x)+1}$
$4\left(\sin(x)\right)^2-3$	$8\sin(x)\cos(x)$	$8\left(\cos(x)\right)^2-8\left(\sin(x)\right)^2$

$2\sin(x)$ $-2\left(\sin(x)\right)^2$	$-4\sin(x)\cos(x)+2\cos(x)$	$4\left(\sin(x)\right)^2-4\left(\cos(x)\right)^2-2\sin(x)$
$\frac{\left(\cos(x)\right)^2-1}{1+2\cos(x)}$	$\frac{2\sin(x)\left(\left(\cos(x)\right)^2-1\right)}{(2\cos(x)+1)^2}$ $-\frac{\sin(x)\cos(x)}{\cos(x)+\frac{1}{2}}$	$-\frac{64\left(\cos(x)\right)^4+96\left(\cos(x)\right)^3+32\cos(x)+96}{128\left(\cos(x)\right)^3+192\left(\cos(x)\right)^2+96\cos(x)+16}$
$4\left(\cos(x)\right)^3$ $-3\cos(x)$	$-12\sin(x)\left(\cos(x)\right)^2+3\sin(x)$	$24\cos(x)\left(\sin(x)\right)^2-12\left(\cos(x)\right)^3$ $+3\cos(x)$
$\frac{2\sin(x)\cos(x)}{\sin(x)+1}$	$\frac{-2\left(\sin(x)\right)^3+2\left(\cos(x)\right)^2-2\left(\sin(x)\right)^2}{\left(\sin(x)\right)^2+2\sin(x)+1}$	$-\frac{2\cos(x)\left(\sin(x)\right)^3+10\cos(x)\left(\sin(x)\right)^2+4\left(\cos(x)\right)^3+8\sin(x)\cos($ $\left(\sin(x)\right)^3+3\left(\sin(x)\right)^2+3\sin(x)+1$
$\frac{\sin(x)+\cos(x)}{2\sin(x)\cos(x)}$	$\frac{\sec(x)\tan(x)-\csc(x)\cot(x)}{2}$	$\csc(x)\left(\cot(x)\right)^2+\sec(x)\left(\tan(x)\right)^2$ $+\frac{\csc(x)}{2}+\frac{\sec(x)}{2}$
$\frac{1-4\left(\left(\sin(x)\right)^2\right)}{\cos(x)}$	$\sec(x)\tan(x)\left(-4\left(\sin(x)\right)^2+1\right)$ $-8\sin(x)$	$\frac{\left(\sec(x)\right)^3\left(-12\left(\sin(x)\right)^2\left(\cos(x)\right)^2-8\left(\sin(x)\right)^4+2\left(\sin(x)\right)^2+\left(\cos(x)\right)^2\right)}{-8\cos(x)}$
$\frac{3\cos(x)}{\left(\sin(x)\right)^2-\left(\cos(x)\right)^2}$	$-\frac{12\sin(x)\left(\cos(x)\right)^2}{\left(\left(\sin(x)\right)^2-\left(\cos(x)\right)^2\right)^2}$ $-\frac{3\sin(x)}{\left(\sin(x)\right)^2-\left(\cos(x)\right)^2}$	$\frac{54\left(\sin(x)\right)^2\left(\cos(x)\right)^3+33\cos(x)\left(\sin(x)\right)^4+9\left(\cos(x)\right)^5}{3\left(\sin(x)\right)^2\left(\cos(x)\right)^4-3\left(\cos(x)\right)^2\left(\sin(x)\right)^4+\left(\sin(x)\right)^6-\left(\cos(x)\right)^6}$
$\sqrt{\sin(x)+1}$	$\frac{\cos(x)}{2\sqrt{\sin(x)+1}}$	$-\frac{\left(\cos(x)\right)^2}{4(\sin(x)+1)^{\frac{3}{2}}}-\frac{\sin(x)}{2\sqrt{\sin(x)+1}}$
$\frac{\cos(x)+\sqrt{3}\sin(x)}{\cos(x)-\sin(x)}$	$\frac{\left(\sin(x)+\cos(x)\right)\left(\sqrt{3}\sin(x)+\cos(x)\right)}{\left(\cos(x)-\sin(x)\right)^2}$ $+\frac{\sqrt{3}\cos(x)-\sin(x)}{\cos(x)-\sin(x)}$	$\frac{2\left(\sqrt{3}\sin(x)+\cos(x)\right)\left(-\sin(x)-\cos(x)\right)^2}{\left(\cos(x)-\sin(x)\right)^3}$ $+\frac{\left(\sin(x)+\cos(x)\right)\left(\sqrt{3}\cos(x)-\sin(x)\right)}{\left(\cos(x)-\sin(x)\right)^2}$ $-\frac{\sqrt{3}\sin(x)+\cos(x)}{\sin(x)-\cos(x)}$ $+\frac{\sqrt{3}-1}{-2\sin(x)\cos(x)+1}$
$\frac{1-\cos(x)}{\sin(x)+\cos(x)}$	$-\frac{(-\cos(x)+1)\left(\cos(x)-\sin(x)\right)}{\left(\sin(x)+\cos(x)\right)^2}$ $+\frac{\sin(x)}{\sin(x)+\cos(x)}$	$\frac{2(-\cos(x)+1)\left(\cos(x)-\sin(x)\right)^2}{\left(\sin(x)+\cos(x)\right)^3}$ $-\frac{2\sin(x)\left(\cos(x)-\sin(x)\right)}{\left(\sin(x)+\cos(x)\right)^2}$ $+\frac{-\cos(x)+1}{\sin(x)+\cos(x)}$ $+\frac{\cos(x)}{\sin(x)+\cos(x)}$
$\sin^{-1}(x-2)$	$\frac{1}{\sqrt{-(x-2)^2+1}}$	$\frac{x-2}{(-(x-2)^2+1)^{\frac{3}{2}}}$
$\tan^{-1}\left(\frac{1-x}{x+1}\right)$	$\frac{1}{-x^2-1}$	$\frac{2x}{(-x^2-1)^2}$
$\tan^{-1}\left(\frac{2-x}{4-x}\right)$	$-\frac{1}{x^2-6x+10}$	$\frac{2x-6}{(x^2-6x+10)^2}$

$\tan^{-1}(x)+x$	$1+\frac{1}{x^2+1}$	$-\frac{2x}{(x^2+1)^2}$
$\sin^{-1}\left(\frac{2}{\sqrt{x}}\right)$	$-\frac{1}{\sqrt{1-\frac{4}{x}}x^{\frac{3}{2}}}$	$\frac{3}{2\sqrt{1-\frac{4}{x}}x^{\frac{5}{2}}}+\frac{2}{\left(1-\frac{4}{x}\right)^{\frac{3}{2}}x^{\frac{7}{2}}}$
$\sin^{-1}(x^2)$	$\frac{2x}{\sqrt{1-x^4}}$	$\frac{4x^4}{(1-x^4)^{\frac{3}{2}}}+\frac{2}{\sqrt{1-x^4}}$
$\sqrt{\tan^{-1}(x^2)}$	$\frac{x}{(x^4+1)\sqrt{\tan^{-1}(x^2)}}$	$\frac{-\frac{3x^4}{\sqrt{\tan^{-1}(x^2)}}-\frac{x^2}{(\tan^{-1}(x^2))^{\frac{3}{2}}}+\frac{1}{\sqrt{\tan^{-1}(x^2)}}}{x^8+2x^4+1}$
$\sin^{-1}\left(\sqrt{1-x^2}\right)$	$-\frac{x}{\lvert x\rvert\sqrt{1-x^2}}$	$\frac{\lvert x\rvert}{\sqrt{1-x^2}x^2}-\frac{x^2}{\lvert x\rvert(1-x^2)^{\frac{3}{2}}}-\frac{1}{\lvert x\rvert\sqrt{1-x^2}}$
$\frac{x}{2}-\tan^{-1}(2x)$	$\frac{1}{2}+\frac{1}{-2x^2-\frac{1}{2}}$	$\frac{4x}{\left(-2x^2-\frac{1}{2}\right)^2}$
$\tan^{-1}\left(\frac{1}{e^x-1}\right)$	$-\frac{e^x}{(e^x-1)^2+1}$	$\frac{2e^{2x}(e^x-1)}{((e^x-1)^2+1)^2}-\frac{e^x}{(e^x-1)^2+1}$
$\sqrt{\tan^{-1}(1-2x)}$	$-\frac{1}{((1-2x)^2+1)\sqrt{\tan^{-1}(1-2x)}}$	$\frac{8x-4}{((1-2x)^2+1)^2\sqrt{\tan^{-1}(1-2x)}}$ $-\frac{1}{((1-2x)^2+1)^2\left(\tan^{-1}(1-2x)\right)^{\frac{3}{2}}}$
$\frac{1}{\tan^{-1}(x)}+\frac{2}{\pi}$	$-\frac{1}{(x^2+1)\left(\tan^{-1}(x)\right)^2}$	$\frac{2x}{(x^2+1)^2\left(\tan^{-1}(x)\right)^2}$ $+\frac{2}{(x^2+1)^2\left(\tan^{-1}(x)\right)^3}$
$x^3-4\lvert x\rvert$	$3x^2-4\text{sign}(x)$	$6x$
$\frac{\lvert x\rvert}{x^2-4}$	$\frac{\text{sign}(x)}{x^2-4}-\frac{2x\lvert x\rvert}{(x^2-4)^2}$	$\frac{8\lvert x\rvert x^2}{(x^2-4)^3}-\frac{6\lvert x\rvert}{(x^2-4)^2}$
$\frac{x^2-4x+5}{3-\lvert 3-x\rvert}$	$-\frac{\text{sign}(3-x)(x^2-4x+5)}{(-\lvert 3-x\rvert+3)^2}$ $+\frac{2x-4}{-\lvert 3-x\rvert+3}$	$\frac{(8-4x)\text{sign}(3-x)}{(-\lvert 3-x\rvert+3)^2}$ $+\frac{2\lvert\text{sign}(3-x)\rvert(x^2-4x+5)}{(-\lvert 3-x\rvert+3)^3}$ $+\frac{2}{-\lvert 3-x\rvert+3}$
$e^x\lvert 1-2x\rvert$	$\lvert 1-2x\rvert e^x-2\text{sign}(1-2x)e^x$	$\lvert 1-2x\rvert e^x-4\text{sign}(1-2x)e^x$
$\frac{\lvert x^2-6x+5\rvert}{x^2}$	$\frac{(2x-6)\text{sign}(x^2-6x+5)}{x^2}$ $-\frac{2\lvert x^2-6x+5\rvert}{x^3}$	$-\frac{6\text{sign}(x^2-6x+5)}{x^2}+\frac{24\text{sign}(x^2-6x+5)}{x^3}$ $+\frac{6\lvert x^2-6x+5\rvert}{x^4}$
$\ln\left(\left\lvert\frac{x-1}{x+2}\right\rvert\right)$	$\frac{3}{(x-1)(x+2)}$	$-\frac{3}{(x+2)(x-1)^2}-\frac{3}{(x-1)(x+2)^2}$
$\ln\left(\sqrt{\left\lvert\frac{x}{x-1}\right\rvert}\right)$	$-\frac{1}{2x(x-1)}$	$\frac{x-\frac{1}{2}}{x^4-2x^3+x^2}$
$\lvert x\rvert e^{(-2)x}$	$\frac{\text{sign}(x)-2\lvert x\rvert}{e^{2x}}$	$\frac{4\lvert x\rvert-4\text{sign}(x)}{e^{2x}}$

$\sqrt{\frac{1-\lvert x\rvert}{4+\lvert x\rvert}}$	$-\frac{5\text{sign}(x)}{2\sqrt{\frac{-\lvert x\rvert+1}{\lvert x\rvert+4}}(x^2+8\lvert x\rvert+16)}$	$\frac{\text{sign}(x)(20\text{sign}(x)+5x)}{\sqrt{\frac{-\lvert x\rvert+1}{\lvert x\rvert+4}}(x^2+8\lvert x\rvert+16)^2}$ $-\frac{25\lvert\text{sign}(x)\rvert}{4\left(\frac{-\lvert x\rvert+1}{\lvert x\rvert+4}\right)^{\frac{3}{2}}(x^2+8\lvert x\rvert+16)^2}$
$x\ln(\lvert x\rvert)$	$\ln(\lvert x\rvert)+1$	$\frac{1}{x}$
$\boldsymbol{e}^{\frac{x^2}{\lvert x\rvert-2}}$	$\frac{(x\lvert x\rvert-4x)\boldsymbol{e}^{\frac{x^2}{\lvert x\rvert-2}}}{x^2-4\lvert x\rvert+4}$	$\frac{(x\lvert x\rvert-4x)^2\boldsymbol{e}^{\frac{x^2}{\lvert x\rvert-2}}}{(x^2-4\lvert x\rvert+4)^2}$ $+\frac{(4\text{sign}(x)-2x)(x\lvert x\rvert-4x)\boldsymbol{e}^{\frac{x^2}{\lvert x\rvert-2}}}{(x^2-4\lvert x\rvert+4)^2}$ $+\frac{(2\lvert x\rvert-4)\boldsymbol{e}^{\frac{x^2}{\lvert x\rvert-2}}}{x^2-4\lvert x\rvert+4}$
$x^3-6x^2+12x+7$	$3x^2-12x+12$	$6x-12$
$(x^2-4x)^2$	$(4x-8)(x^2-4x)$	$12x^2-48x+32$
$(x-2)(x+1)(x-3)$	$3x^2-8x+1$	$6x-8$
$(1-x^2)^2$	$-4x(1-x^2)$	$12x^2-4$
$\frac{x^3}{6}+\frac{6}{x^3}$	$\frac{x^2}{2}-\frac{18}{x^4}$	$x+\frac{72}{x^5}$
$-\frac{2x^3}{x^2-4}$	$\frac{24x^2-2x^4}{x^4-8x^2+16}$	$-\frac{16x^3+192x}{x^6-12x^4+48x^2-64}$
$x-1-\frac{1}{x}+\frac{1}{x^2}$	$1+\frac{1}{x^2}-\frac{2}{x^3}$	$-\frac{2}{x^3}+\frac{6}{x^4}$
$\frac{x^2-4}{x}$	$1+\frac{4}{x^2}$	$-\frac{8}{x^3}$
$\sqrt{x^2-1}+x$	$\frac{x}{\sqrt{x^2-1}}+1$	$-\frac{x^2}{(x^2-1)^{\frac{3}{2}}}+\frac{1}{\sqrt{x^2-1}}$
$\frac{x+1}{\sqrt{x^2+2x}}$	$-\frac{(x+1)^2}{(x^2+2x)^{\frac{3}{2}}}+\frac{1}{\sqrt{x^2+2x}}$	$\frac{(3x+3)(x+1)^2}{(x^2+2x)^{\frac{5}{2}}}-\frac{3(x+1)}{(x^2+2x)^{\frac{3}{2}}}$
$1-\sqrt{x^2-5x+6}$	$-\frac{x-\frac{5}{2}}{\sqrt{x^2-5x+6}}$	$-\frac{\left(\frac{5}{2}-x\right)\left(x-\frac{5}{2}\right)}{(x^2-5x+6)^{\frac{3}{2}}}-\frac{1}{\sqrt{x^2-5x+6}}$
$\ln\left(\frac{x^2-3x+2}{x^2}\right)$	$\frac{3-\frac{4}{x}}{x^2-3x+2}$	$\frac{\left(-3+\frac{4}{x}\right)(2x-3)}{(x^2-3x+2)^2}+\frac{4}{x^2(x^2-3x+2)}$
$2x\ln(x)$	$2\ln(x)+2$	$\frac{2}{x}$
$\ln\left(\sqrt{x^2-1}\right)$	$\frac{x}{x^2-1}$	$-\frac{2x^2}{(x^2-1)^2}+\frac{1}{x^2-1}$
$\frac{\boldsymbol{e}^x}{\sqrt{x}}-1$	$-\frac{\boldsymbol{e}^x}{2x^{\frac{3}{2}}}+\frac{\boldsymbol{e}^x}{\sqrt{x}}$	$\frac{3\boldsymbol{e}^x}{4x^{\frac{5}{2}}}-\frac{\boldsymbol{e}^x}{x^{\frac{3}{2}}}+\frac{\boldsymbol{e}^x}{\sqrt{x}}$
$\boldsymbol{e}^x\left(\frac{x}{x+4}\right)$	$\frac{x^2\boldsymbol{e}^x+4x\boldsymbol{e}^x+4\boldsymbol{e}^x}{x^2+8x+16}$	$\frac{\frac{x^3\boldsymbol{e}^x}{2}+4x^2\boldsymbol{e}^x+12x\boldsymbol{e}^x+12\boldsymbol{e}^x}{\frac{x^3}{2}+6x^2+24x+32}$
$x^4\boldsymbol{e}^{-x}$	$\frac{4x^3-x^4}{\boldsymbol{e}^x}$	$\frac{x^4-8x^3+12x^2}{\boldsymbol{e}^x}$

$\ln\left(\frac{x^2-1}{x^2+4}\right)$	$\frac{10x}{(x^2-1)(x^2+4)}$	$-\frac{30x^4+30x^2+40}{x^8+6x^6+x^4-24x^2+16}$
$\ln(\sin(x))$	$\cot(x)$	$-(\csc(x))^2$
$e^{\sin(x)}$	$\cos(x)e^{\sin(x)}$	$(\cos(x))^2e^{\sin(x)}-\sin(x)e^{\sin(x)}$
$\sqrt{\sin(x)-\cos(x)}$	$\frac{\sin(x)+\cos(x)}{2\sqrt{\sin(x)-\cos(x)}}$	$-\frac{(\sin(x)+\cos(x))^2}{4(\sin(x)-\cos(x))^{\frac{3}{2}}}+\frac{\cos(x)-\sin(x)}{2\sqrt{\sin(x)-\cos(x)}}$
$\frac{1}{\sqrt{\sin(2x)}}$	$-\frac{\cos(2x)}{(\sin(2x))^{\frac{3}{2}}}$	$\frac{3(\cos(2x))^2}{(\sin(2x))^{\frac{5}{2}}}+\frac{2}{\sqrt{\sin(2x)}}$
$(\ln(x)-2)\ln(x)$	$\frac{2\ln(x)-2}{x}$	$\frac{-2\ln(x)+4}{x^2}$
$\frac{1}{(\cos(x))^4}-1$	$4\tan(x)(\sec(x))^4$	$20(\tan(x))^2(\sec(x))^4+4(\sec(x))^4$
$\frac{1}{(1-2x)^3}$	$\frac{6}{(1-2x)^4}$	$\frac{48}{(1-2x)^5}$
$2x^3(2-x)^2$	$10x^4-32x^3+24x^2$	$40x^3-96x^2+48x$
$\sin(2x)+2\left((\cos(x))^2\right)$	$-4\sin(x)\cos(x)+2\cos(2x)$	$4(\sin(x))^2-4(\cos(x))^2-4\sin(2x)$
$2\sin^{-1}\left(\frac{1+x}{1-x}\right)$	$-\frac{4}{\sqrt{-\frac{(x+1)^2}{(1-x)^2}+1(-x^2+2x-1)}}$	$\frac{\frac{x^2}{\sqrt{-\frac{(x+1)^2}{(1-x)^2}+1}}+\frac{x}{\left(-\frac{(x+1)^2}{(1-x)^2}+1\right)^{\frac{3}{2}}}-\frac{2x}{\sqrt{-\frac{(x+1)^2}{(1-x)^2}+1}}+\frac{1}{\sqrt{-\frac{(x+1)^2}{(1-x)^2}+1}}+\frac{1}{\left(-\frac{(x+1)^2}{(1-x)^2}+1\right)^{\frac{3}{2}}}}{-\frac{x^5}{8}+\frac{5x^4}{8}-\frac{5x^3}{4}+\frac{5x^2}{4}-\frac{5x}{8}+\frac{1}{8}}$
$\tan^{-1}\left(\frac{x-1}{2x-1}\right)$	$\frac{1}{5x^2-6x+2}$	$-\frac{10x-6}{(5x^2-6x+2)^2}$
$\frac{x^2-3x+2}{x^2}$	$\frac{3}{x^2}-\frac{4}{x^3}$	$-\frac{6}{x^3}+\frac{12}{x^4}$
$\frac{x-1}{\sqrt{x-2}}$	$-\frac{x-1}{2(x-2)^{\frac{3}{2}}}+\frac{1}{\sqrt{x-2}}$	$\frac{3(x-1)}{4(x-2)^{\frac{5}{2}}}-\frac{1}{(x-2)^{\frac{3}{2}}}$
$x\ln(x^2)$	$\ln(x^2)+2$	$\frac{2}{x}$
$\frac{\cos(x)}{1+\cos(x)}$	$-\frac{\sin(x)}{(\cos(x))^2+2\cos(x)+1}$	$-\frac{2(\sin(x))^2+(\cos(x))^2+\cos(x)}{(\cos(x))^3+3(\cos(x))^2+3\cos(x)+1}$
$e^x(x^2+1)$	$(x^2+1)e^x+2xe^x$	$x^2e^x+4xe^x+3e^x$
$\frac{x^3}{3}-\frac{9x^2}{4}+2x+\frac{7}{3}$	$x^2-\frac{9x}{2}+2$	$2x-\frac{9}{2}$
$\frac{x^3-2}{x^2}$	$1+\frac{4}{x^3}$	$-\frac{12}{x^4}$
$\tan^{-1}(x)-\frac{1}{x}$	$\frac{1}{x^2+1}+\frac{1}{x^2}$	$-\frac{2x}{(x^2+1)^2}-\frac{2}{x^3}$
$\sqrt{\ln(x+3)}$	$\frac{1}{2(x+3)\sqrt{\ln(x+3)}}$	$-\frac{1}{4(x+3)^2\ln(x+3)^{\frac{3}{2}}}-\frac{1}{2(x+3)^2\sqrt{\ln(x+3)}}$

$\frac{x^4-5x^2+4}{\sqrt{x^2-1}}$	$-\frac{x(x^4-5x^2+4)}{(x^2-1)^{\frac{3}{2}}}+\frac{4x^3-10x}{\sqrt{x^2-1}}$	$\frac{x(20x-8x^3)}{(x^2-1)^{\frac{3}{2}}}+\frac{3x^2(x^4-5x^2+4)}{(x^2-1)^{\frac{5}{2}}}$ $-\frac{x^4-5x^2+4}{(x^2-1)^{\frac{3}{2}}}$ $+\frac{12x^2-10}{\sqrt{x^2-1}}$
$\frac{\ln(x^2-1)}{x^2-4}$	$-\frac{2x\ln(x^2-1)}{(x^2-4)^2}+\frac{2x}{(x^2-4)(x^2-1)}$	$\frac{6x^6\ln(x^2-1)-4x^4\ln(x^2-1)-10x^2\ln(x^2-1)+8\ln(x^2-1)-10x^6+54x^4-48x^2-32}{x^{10}-14x^8+73x^6-172x^4+176x^2-64}$
$\sin^{-1}\left(\sqrt{x-x^2}\right)$	$\frac{\frac{1}{2}-x}{\sqrt{(x-x^2)(x^2-x+1)}}$	$\frac{\left(\frac{1}{2}-x\right)\left(x-\frac{1}{2}\right)}{\sqrt{x^2-x+1}(x-x^2)^{\frac{3}{2}}}$ $+\frac{\left(\frac{1}{2}-x\right)^2}{\sqrt{x-x^2}(x^2-x+1)^{\frac{3}{2}}}$ $-\frac{1}{\sqrt{(x-x^2)(x^2-x+1)}}$
$x+1$ $-2\left(\left(\sin(x)\right)^2\right)$	$-4\sin(x)\cos(x)+1$	$4\left(\sin(x)\right)^2-4\left(\cos(x)\right)^2$
$x^2\ln(\lvert x\rvert)$	$2x\ln(\lvert x\rvert)+x$	$2\ln(\lvert x\rvert)+3$
$\sqrt{\frac{1+x^2}{1+2x^2}}$	$-\frac{x}{\sqrt{\frac{x^2+1}{2x^2+1}}(4x^4+4x^2+1)}$	$\frac{\frac{48x^4}{\sqrt{\frac{x^2+1}{2x^2+1}}}+\frac{16x^2}{\sqrt{\frac{x^2+1}{2x^2+1}}}-\frac{4x^2}{\left(\frac{x^2+1}{2x^2+1}\right)^{\frac{3}{2}}}-\frac{4}{\sqrt{\frac{x^2+1}{2x^2+1}}}}{64x^8+128x^6+96x^4+32x^2+4}$
$\ln\left(\frac{\lvert x\rvert-1}{x}\right)$	$\frac{1}{x(\lvert x\rvert-1)}$	$-\frac{1}{(\lvert x\rvert-1)x^2}-\frac{\lvert x\rvert}{x^2(\lvert x\rvert-1)^2}$
$(x+4)e^{-x^2}$	$\frac{-2x(x+4)+1}{e^{x^2}}$	$\frac{4(x+4)x^2-2(x+4)-4x}{e^{x^2}}$
$\frac{\lvert x\rvert}{\ln(\lvert x\rvert)}$	$-\frac{\lvert x\rvert}{x\ln(\lvert x\rvert)^2}+\frac{\operatorname{sign}(x)}{\ln(\lvert x\rvert)}$	$\frac{-\lvert x\rvert\ln(\lvert x\rvert)+2\lvert x\rvert}{x^2\ln(\lvert x\rvert)^3}$
$\ln\left(\frac{x^2-x}{\lvert x\rvert+2}\right)$	$\frac{-\frac{\operatorname{sign}(x)(x^2-x)}{\lvert x\rvert+2}+2x-1}{x^2-x}$	$-\frac{(2x-1)\left(-\frac{\operatorname{sign}(x)(x^2-x)}{\lvert x\rvert+2}+2x-1\right)}{(x^2-x)^2}$ $+\frac{\lvert\operatorname{sign}(x)\rvert x^2+\lvert x\rvert\operatorname{sign}(x)-x\lvert\operatorname{sign}(x)\rvert+2\operatorname{sign}(x)+4\lvert x\rvert+}{(x^2-x)(x^2+4\lvert x\rvert+4)}$
$e^{\sqrt{\frac{1-x}{x+2}}}$	$-\frac{3e^{\sqrt{\frac{1-x}{x+2}}}}{2\sqrt{\frac{1-x}{x+2}}(x^2+4x+4)}$	$-\frac{9e^{\sqrt{\frac{1-x}{x+2}}}}{4\left(\frac{1-x}{x+2}\right)^{\frac{3}{2}}(x^2+4x+4)^2}$ $+\left(\frac{9e^{\sqrt{\frac{1-x}{x+2}}}}{4(1-x)(x^3+6x^2+12x+8)}\right)$ $+\frac{e^{\sqrt{\frac{1-x}{x+2}}}}{\sqrt{\frac{1-x}{x+2}}\left(\frac{x^3}{3}+2x^2+4x+\frac{8}{3}\right)}$
x^x	$(\ln(x)+1)x^x$	$(\ln(x)+1)^2x^x+x^{x-1}$
$\tan^{-1}\left(\sqrt{\frac{1+x}{1-x}}\right)$	$\frac{1}{\sqrt{\frac{x+1}{1-x}}(2-2x)}$	$\frac{\frac{4x}{\sqrt{\frac{x+1}{1-x}}}+\frac{4}{\left(\frac{x+1}{1-x}\right)^{\frac{3}{2}}}-\frac{4}{\sqrt{\frac{x+1}{1-x}}}}{8x^3-24x^2+24x-8}$

$2\left(\left(\cos(x)\right)^2\right)\tan(x)$	$2\left(\cos(x)\right)^2-2\left(\sin(x)\right)^2$	$-8\sin(x)\cos(x)$
$\sqrt{\frac{1-\sin(x)}{1+\sin(x)}}$	$-\frac{\cos(x)}{\sqrt{\frac{-\sin(x)+1}{\sin(x)+1}}\left(\left(\sin(x)\right)^2+2\sin(x)+1\right)}$	$-\frac{\left(\cos(x)\right)^2}{\left(\frac{-\sin(x)+1}{\sin(x)+1}\right)^{\frac{3}{2}}\left(\left(\sin(x)\right)^2+2\sin(x)+1\right)^2}+\frac{2\left(\cos(x)\right)^2}{\sqrt{\frac{-\sin(x)+1}{\sin(x)+1}}\left(\left(\sin(x)\right)^3+3\left(\sin(x)\right)^2+3\sin(x)+1\right)}+\frac{\sin(x)}{\sqrt{\frac{-\sin(x)+1}{\sin(x)+1}}\left(\left(\sin(x)\right)^2+2\sin(x)+1\right)}$
$\left\lvert\ln\left(\sqrt{x}\right)\right\rvert$	$\frac{\operatorname{sign}\left(\ln(x)\right)}{2x}$	$-\frac{\operatorname{sign}\left(\ln(x)\right)}{2x^2}$
$2\sqrt{\sin^{-1}(x)}$	$\frac{1}{\sqrt{(1-x^2)\sin^{-1}(x)}}$	$\frac{x}{(1-x^2)^{\frac{3}{2}}\sqrt{\sin^{-1}(x)}}-\frac{1}{2(1-x^2)\left(\sin^{-1}(x)\right)^{\frac{3}{2}}}$